JVC

ENGLISH

InteríArt

AV-28E50SK
AV-32E50SK

JVC

INTEGRATED DIGITAL COLOUR TELEVISION INSTRUCTIONS

an, Limited

0205MKH-VT-VT

DVB
Digital Video Broadcasting

Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996) Number: 3590, 3591

G-28&3229W-STEREO-COVER-BSI-C1815S-(AV-28&32E50SK)-50066123.cdr

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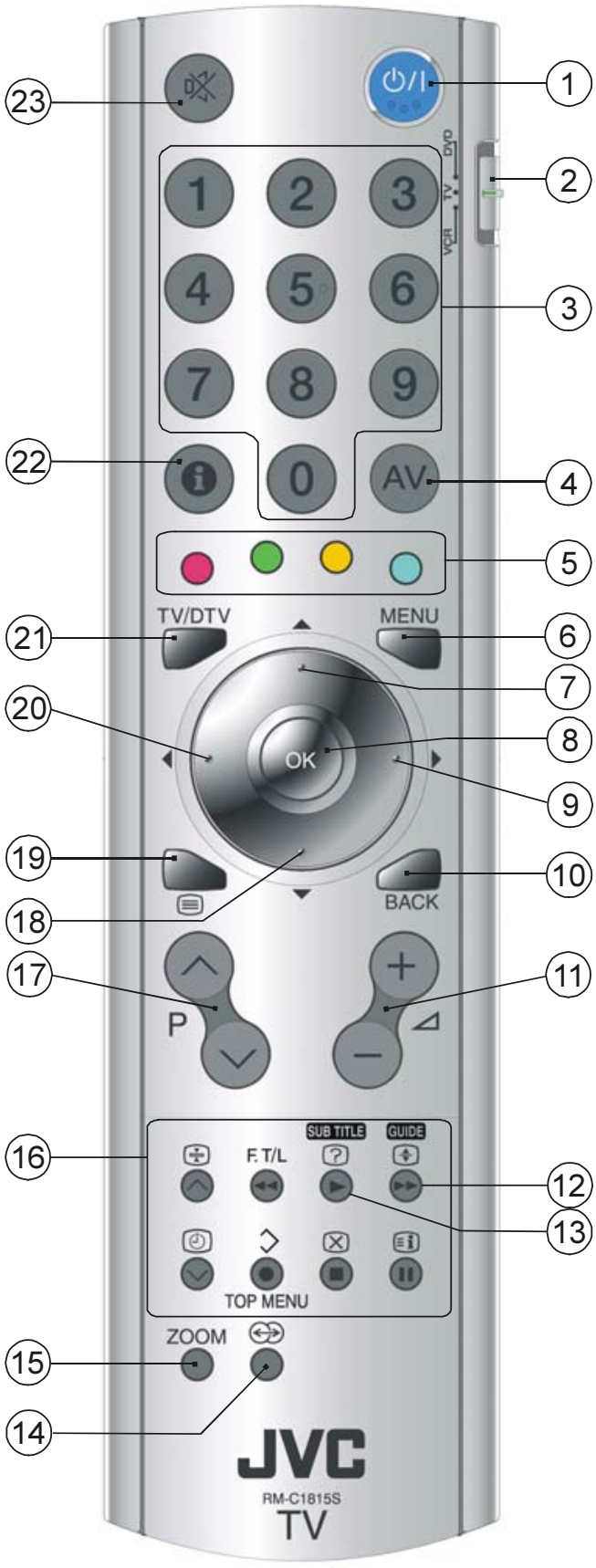
Remote Control

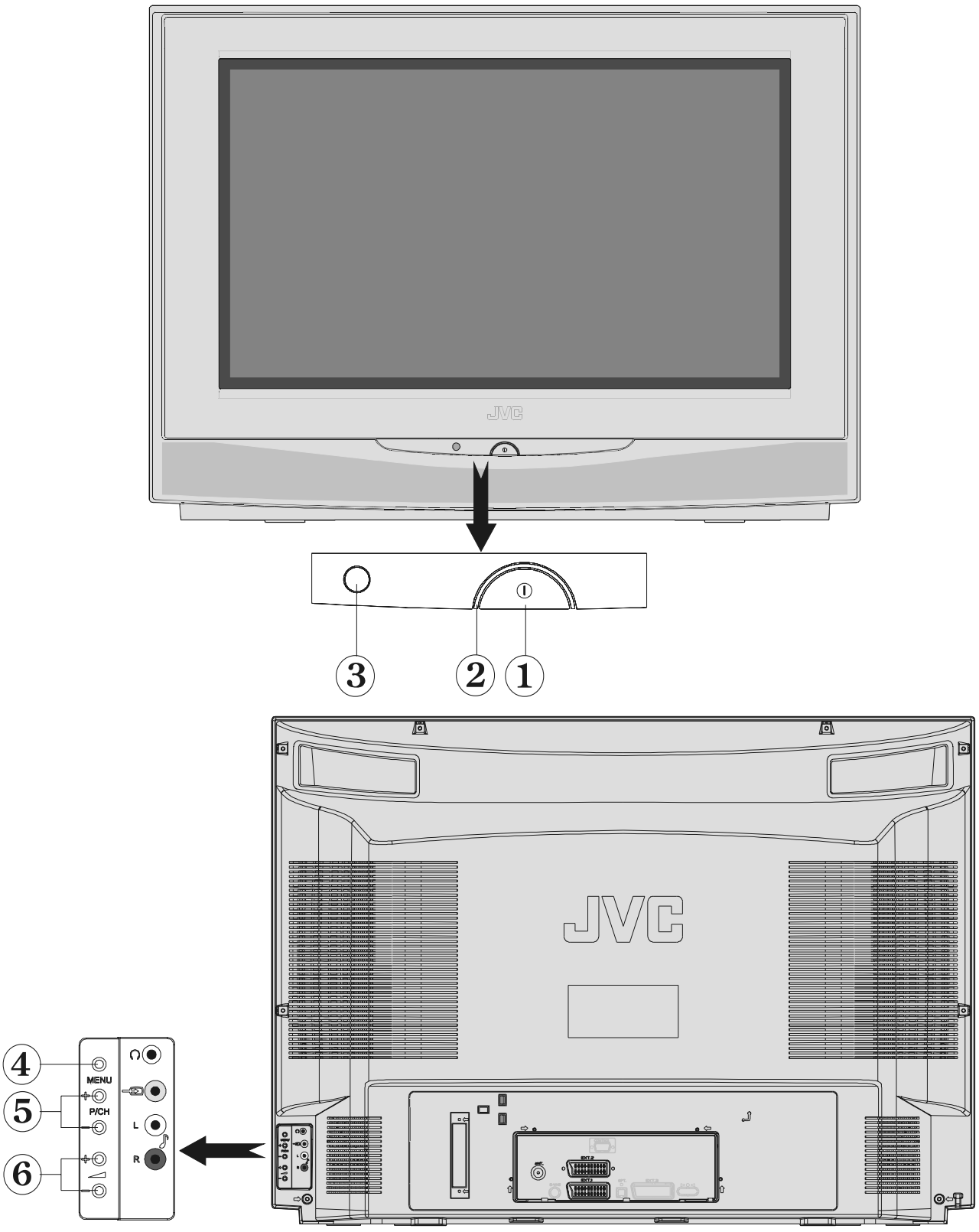
① ⏻ / I = (Stand By) button
② TV / VCR / DVD Switch
③ Number buttons
④ **AV** button (EXT1, EXT2, EXT2S, EXT3)
⑤ Colour buttons
⑥ **MENU** = Menu button
⑦ ▲ = Cursor Up button
⑧ OK button
⑨ ▶ = Cursor Right button
⑩ **BACK** = Back button
⑪ ◿ = Volume - /+ buttons
⑫ **GUIDE** button
⑬ **SUBTITLE** button
⑭ = Hyper Sound on/off button
⑮ **ZOOM** = Zoom button
⑯ VCR / DVD / Teletext control buttons
⑰ P∧/∨ buttons
⑱ ▼ = Cursor Down button
⑲ = Teletext button
⑳ ◀ = Cursor Left button
㉑ **TV / DTV** button
㉒ = Information Button / T-V Link in Program Menu
㉓ = Mute button



Functions of VCR / DVD control buttons:

	VCR	DVD
∧	: Prog. up	Chapter up
◂◂	: Rewind	Rewind
▶	: Play	Play
▸▸	: Fast Forward	Fast Forward
∨	: Prog. down	Chapter down
●	: Record	Top Menu
■	: Stop	Stop
▮▮	: Pause	Pause

TV Buttons and Functions



① Power On / Off

② Power lamp

③ Remote control sensor

④ Menu

⑤ Programme Up/Down

⑥ Volume Up/Down

Features

- It is a remote controlled Integrated Digital colour television.
- 100 programmes from VHF, UHF bands or cable channels can be preset.
- It can tune cable channels.
- Controlling the TV is very easy by its menu driven system.
- It has two Euroconnector sockets for external devices (such as computer, video, video games, audio set, etc.)
- NICAM Stereo sound system.
- Teletext (Fastext, Toptext).
- It is possible to connect headphone.
- Direct channel access.
- A.P.S. (Automatic Programming System).
- All programmes can be named.
- Programme swapping between last watched two programmes.
- Forward or backward automatic tuning.
- Sleep timer.
- Child Lock.
- Automatic sound mute when no transmission.
- When no valid signal is detected, after 5 minutes the TV switches itself automatically to stand-by mode.
- WSS (Wide Screen Signaling).
- NTSC Playback.
- S-VHS (via SCART)
- Front AV in is available.
- Real Flat

Safety Precautions

1. Power Source

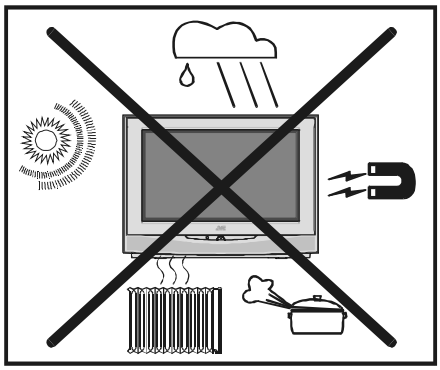
The receiver should be operated only from a **220-240V AC, 50 Hz** outlet. Ensure you select the correct voltage setting for your convenience.

2. Power Cord

The power supply cord should be placed so that it is not likely to be walked on or pinched by items placed upon them or against it. Pay particular attention to cord where it enters the plug, power outlet, and the point where it exits from the receiver.

3. Moisture and Water

Do not use this equipment in a humid and damp place (avoid the bathroom, the sink in the kitchen, and near the washing machine). Do not expose this equipment to rain or water, as this may be dangerous and do not place objects filled with liquids on top. Avoid from dripping or splashing.



4. Cleaning

Before cleaning, unplug the TV from the main supply, outlet. Do not use liquid or aerosol cleaners. Use soft and dry cloth.

5. Ventilation

The slots and openings on the receiver are intended for ventilation and to ensure reliable operation. To prevent overheating, these openings must not be blocked or covered in anyway.

6. Lightning

In case of storm and lightning or when going on holiday, disconnect the power cord from the wall outlet.

7. Replacement Part

When replacement parts are required, be sure the service technician has used replacement parts which are specified by the manufacturer or have the same specifications as the originals. Unauthorised substitutions may result in fire, electrical shock, or other hazards.

8. Servicing

Please refer all servicing to qualified personnel. Do not remove cover as this may result in electric shock.

9. X-rays

The X-rays generated in this television are shielded sufficiently.

10. Naked Flame Sources

Do not place naked flame sources on the apparatus.

Warning!

Any intervention contrary to regulations, in particular, any modification of high voltage or a replacement of the picture tube may lead to an increased concentration of x-rays. Any television modified in this way no longer complies with license and must not be operated.

Instructions for waste disposal:

- Packaging and packaging aids are recyclable and should principally be recycled. Packaging materials, such as foil bag, must be kept away from children.
- Batteries, including those which are heavy metal-free, should not be disposed of with household waste. Please dispose of used batteries in an environmentally sound manner. Find out about the legal regulations which apply in your area.

“DO NOT LEAVE YOUR TV AT STAND-BY OR OPERATING WHEN YOU LEAVE YOUR HOUSE”

Cleaning The Screen

Your TV is fitted with a “Real Flat" picture tube. The surface of the screen is covered with a foil. Under no circumstances may this be damaged.

To clean

Clean the laminated screen with a soft cotton cloth. Only non-alkaline, thinned soapsuds on a basis of water or alcohol be used to moisten the cloth. Rub the surface gently with the cloth until the surface is completely dry.

Under no circumstances...

may the screen be wiped with conventional glass cleaning fluid.

may the screen be brought into contact with abrasive materials.

may soiling be removed by polishing or scouring.

To clean off sticky substances, the cloth can be moistened with acetone.

Under no circumstances should acetone be used to clean the TV cabinet.

CAUTION

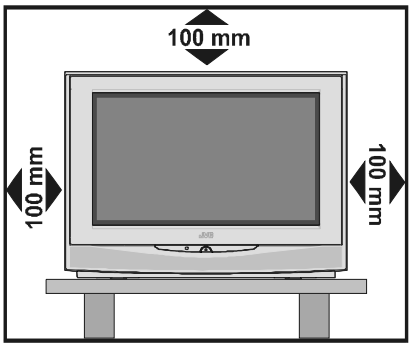
RISK OF ELECTRIC SHOCK

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock of persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Preparation

For ventilation, leave a space of at least 10 cm free all around the set. To prevent any fault and unsafe situations, please do not place any objects on top of the set.



Use this apparatus in moderate climate.

Before Switching on your TV

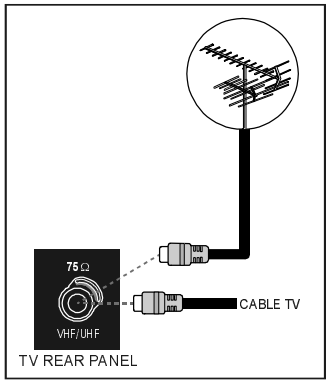
Power connection

IMPORTANT: The TV set is designed to operate on **220-240V AC, 50 Hz.**

- After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains.

Connections to the RF input socket

- Connect the aerial or cable TV plug to the RF input socket located at the back of the TV and connect the cable plug coming out from the TV out socket located at the devices (VCR, DVB etc.) to this socket as well.



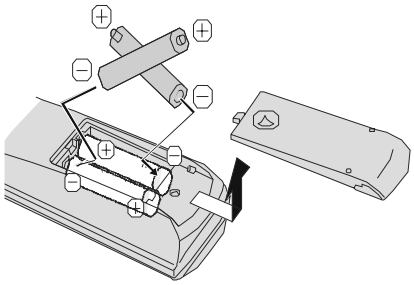
How to connect other devices

IMPORTANT: Switch off the TV before connecting any external device.

Sockets for external connections are at the back and right side of the TV. For connection of other devices via Euroconnector refer to the manuals of the related devices.

Inserting batteries into the remote control

- Remove the battery cover located on the back of the remote control by gently pulling downwards from the indicated part.
- Insert two **AA (R06)** or equivalent type batteries inside. Place the batteries in the right directions as seen below.
- Replace the battery cover.



NOTE: *Remove batteries from remote control when it is not to be used for a long period. Otherwise it can be damaged due to any leakage of batteries.*

Switching the TV ON/OFF

To switch the TV on

Your TV will switch on in two steps:

1- Press the power button located on the front of the TV. Then the TV switches itself to standby mode and the power lamp becomes RED located on the lower part of the TV.

2- To switch on the TV from stand-by mode either:

Press the "⏻ / I" button on the remote control,

or,

Press a digit button on the remote control so that a programme number is selected,

or,

Press Programme Up or Down buttons on the right side of the TV or on the remote control, so that last switched off programme is selected.

The TV will switch on and the power lamp will turn off.

To switch the TV off

- Press the stand-by button on the remote control, so the TV will switch to stand-by mode and the power lamp will become RED,

or,

- Press the power button located on the front of the TV, so the TV will switch off and the power lamp will turn off.

Initial Settings

When the TV is first turned on, it goes into the initial settings mode. Follow the instructions on the screen display to make the initial settings.

Note: *If the TV does not go into the initial settings mode this is because your TV has already been turned on for the first time. (Perform the factory settings with "INSTALLATION" (see page 15) in the DTV menu and "AUTO STORE" (Analogue) (see page 20) in the PROGRAMME menu.)*

Because this is the first time that IDTV has been used, there are no channels stored in the memory and below information will be displayed on the screen.

1. Press the OK button to start the automatic search.

The IDTV will automatically tune to the UHF transmission channels 21 to 68 looking for digital terrestrial TV broadcasts and displaying the names of channels found. This process will take about five minutes. To cancel searching, you can press MENU button at any time during the process.

HINT: *Depending on the reception conditions in your particular area, you may find that the list of channels found includes one or more repeated names. This is because the receiver may detect and store some channels, including those it cannot receive clearly, from adjacent areas alongside the strong channels from a transmitter nearby. This is not a problem and the weaker channels can be deleted from the receiver later, as described in - Edit PR List on page 14.*

2. When the automatic search has finished, the EDIT PR LIST menu appears.

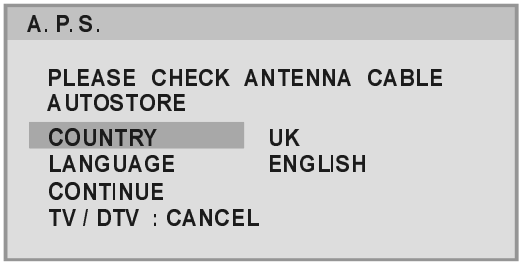
• If you want to, you can now edit the programme numbers (PR) using the EDIT PR LIST function. For details, see "**Edit PR List**" on **page 14**.

• If you do not want to edit programme numbers (PR), go to the next step.

3. Press the MENU button.

The EDIT PR LIST menu disappears and the following message appears.

If you select "Yes", Analogue terrestrial broadcasting AUTOMATIC PROGRAMMING SYSTEM (A.P.S.) window is displayed.



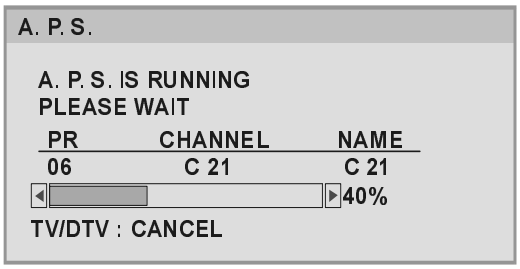
• If you do not want to start **A.P.S.**, you can cancel it by pressing the **TV/DTV** button on your remote control.

• First select your country by pressing "◀" or "▶" button. This will affect the sort process in APS.

• By pressing the "▲" or "▼" buttons, come to the Language item and select the language in which the menus of the TV will appear. You can see the available languages by pressing "◀" or "▶" button. As soon as you change the language, the menu items will be displayed in the selected language.

• To select "**Continue**" use "▲" or "▼" button. By pressing "◀" or "▶" button start the **A.P.S.**

• When you start **A.P.S.** the following window will appear on the screen.



After APS is finalized, a programme list will appear on the screen. In the programme list you will see the programme numbers and names assigned to the programmes.

If you do not accept the locations and / or the programme names of programmes, you can change them in Program menu. For details see PROGRAMME menu on page 20.

If you do not have a T-V LINK compatible VCR, press MENU button to exit the menu.

If you have a T-V LINK compatible VCR connected to the EXT.2 terminal, press "ⓘ" button to display T-V LINK menu. Then follow the operating procedure "Downloading data to VCR" in the following T-V LINK section.

T-V LINK

When a T-V LINK compatible VCR is connected to the EXT.2 terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions

A "T-V LINK compatible VCR" means a JVC video cassette recorder with the T-V LINK logo, or with one of the following logos. For details see your VCR instruction manual.

"**Q-LINK**" (A trademark of Panasonic Corporation)

"**Data Logic**" (A trademark of Metz Corporation)

"**Easy Link**" (A trademark of Philips Corporation)

"**Megalogic**" (A trademark of Grundig Corporation)

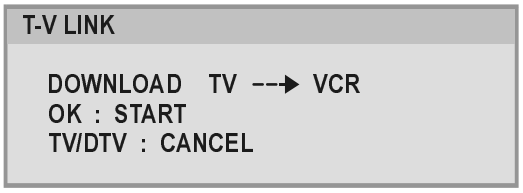
"**SMARTLINK**" (A trademark of Sony Corporation)

Downloading data to VCR:

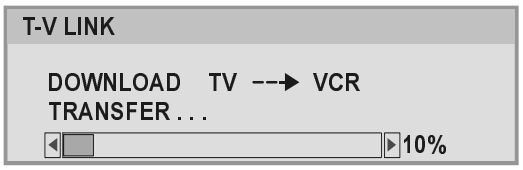
The VCR will automatically download the registered data on the TV channels from the TV. This means you do not

need to set up the programme channels on your VCR manually.

The "T-V LINK" menu will be displayed when you press the "ⓘ" button while PROGRAM menu is displayed.



Press "OK" button to start downloading data to VCR. "TRANSFER" is displayed in the menu.



If you do not want to continue press the **TV/DTV** button to exit the menu.

If "FEATURE NOT AVAILABLE" is displayed, download was not performed correctly. Before trying to download again, check that:

- The VCR power is turned on.
- The VCR is T-V LINK compatible.
- The VCR is connected to the EXT.2.
- The scart cable is fully wired.

Direct REC:

You can easily record to VCR the images that you are watching on the TV. For details, read the manual for your VCR. Use your VCR controls. "VCR IS RECORDING" is diplayed. You can not carry out Direct REC using your TV's control.

When the VCR is not ready (For example when there is no tape inserted), "NO RECORDING" is displayed.

When you press the following buttons (⏻/ |, ⓘ, AV, MENU, TV/DTV, ☰, BACK, SUBTITLE, GUIDE, ZOOM, ⇔, **P**∨ / **P**∧, number buttons) during recording, a message appears asking if you want to stop recording or not. Press **OK** button to stop recording or **BLUE** button to continue recording.

Do not turn the TV off in the following cases:

- When recording images from an external device connected to TV (For example camcorder).
- When recording a TV channel after it has been unscrambled on a decoder.
- When recording a TV channel by using the TV's output because the VCR's own tuner can not properly receive that channel.
- When recording Digital terrestrial broadcasting (DVB-T).

TV autopower on/VCR image view:

When the VCR starts playing, the TV automatically turns on and images from EXT2 appear on the screen.

This function does not happen if your TV's main power is turned off. Set your TV's main power to on (StandBy Mode).

Basic Operations

You can operate your TV using both the remote control and onset buttons.

Operation with the buttons on the TV

Volume Setting

- Press "◢ **-**" button to decrease volume or "◢ **+**" button to increase volume, so a volume level scale (slider) will be displayed at the middle of the bottom on the screen.

Programme Selection

- Press "**P/CH +**" button to select the next programme or "**P/CH -**" button to select the previous programme.

Entering Main Menu

- Press "**MENU**" button to enter Main menu. In the Main menu select sub-menu using "**P/CH -**" or "**P/CH +**" button and enter the sub-menu using "◢ **-**" or "◢ **+**" button. To learn the usage of the menus, refer to the Menu System sections.

Operation with Remote Control

The remote control of your TV is designed to control all the functions of the model you selected. The functions will be described in accordance with the menu system of your TV.

Functions of the menu system are described in following sections.

Volume Setting

Press "◢ **+**" button to increase volume. Press "◢ **-**" button to decrease volume. A volume level scale (slider) will be displayed in the middle at the bottom of the screen.

Programme Selection (Previous or next programme)

- Press "**P**∨" button to select the previous programme.
- Press "**P**∧" button to select the next programme.

Programme Selection (direct access):

Press digit buttons on the remote control to select programmes between 0 and 9. TV will switch to the selected programme. To select programmes between 10 - 99, press the digit buttons consecutively which programme you want to select (eg. for programme 27, first press 2 and then 7). When it is late to press second digit button only the first digit programme will be displayed. The limit of the delay time is 3 seconds.

Example: PR6 → press 6, PR12 → press 1 and 2.

Press directly the programme number to reselect single digit programmes.

Hint: *The channel list numbers are assigned by the broadcasters. Because not all channels are broadcast free-to-air and stored by the receiver, the channel list numbers do not run continuously. The fifteenth channel in the list, for example, may not be channel number 15 but channel number 17.*

Hint: *If you enter a number which does not correspond to a stored channel, the next valid channel number is selected instead. If you enter a number greater than the highest numbered channel in the channel list, the IDTV will select the last channel in the list.*

Operating while watching IDTV

Pressing the "TV/DTV" button at any time while watching television programmes will switch the TV set between displaying the digital terrestrial television broadcasting and its normal analogue broadcasting.

It is also used to switch to the last watched mode (TV or DIGITAL TV) from the EXT mode. For example; if a DVD player is connected with a SCART cable and powered on, then the IDTV will automatically switch to EXT mode. The IDTV will switch to the last watched mode (TV or DIGITAL TV) if DVD player is switched off or "TV/DTV" button is pressed.

EVERYDAY OPERATION

While using the IDTV to the full, there are great many buttons to use in different situations. Many of the menu screens displayed by the IDTV have reminders as to which button do what, at the base of the screen. In addition, many screens have further help available which is displayed when the ⓘ button is pressed, as prompted at the bottom right of the screen.

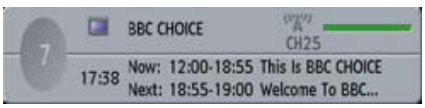
OVER AIR DOWNLOAD

Over Air Download (OAD): To ensure that your IDTV always has the most up-to-date information. Please ensure that after use it is set to its standby mode. At 3AM each day, the IDTV automatically searches for any new information which may be broadcast and will download this to your IDTV automatically. This operation will normally take approximately 30 seconds.

If you want to do this, you need to set Automatic Download to "**Enabled**" in Receiver Upgrade setting. For details see **page 13**.

INFORMATION BANNER

Whenever you change channel, using the **P∨** / **P∧** buttons or the number buttons, an information banner is displayed at the bottom of the screen. This will remain on the screen for approximately three seconds. The information banner can also be displayed at any time while watching TV by pressing the ⓘ button on the remote control. Pressing the ⓘ button again removes the banner.



Hint: *Not all channels broadcast the programme data. If the name and times of the programme is not available then "No Information" is displayed in the information banner.*

The information banner gives a number of facts on the channel selected and the programmes on it. The name of the channel is displayed, along with its channel list number and an indication of the strength of the signal received on this tuning channel.

The name and the start and finish time of the programme currently showing on the selected channel are given, and the current time.

Icons are also displayed in the information banner and if this channel is a favourite channel.

favorite channel icon ☺

If the selected channel is locked, you must enter the correct four digit code to view the channel.

ELECTRONIC PROGRAMME GUIDE (EPG)

Another way of selecting a channel is with the electronic programme guide, or EPG. Like the Channel List, the EPG screen displays a list of the stored channels along with information on what programmes are being broadcast.

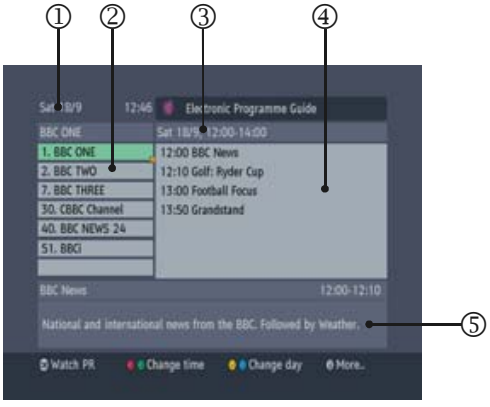
Using the Electronic Programme Guide

EPG can display 7 days programme guide, but in some areas only current and next programme guide is displayed.

By using EPG, you can select the channel and set the reminder for the programme which you do not want to miss.

To display the EPG screen, press the GUIDE button while watching Digital terrestrial broadcasting.

You can exit the EPG screen by pressing the GUIDE button again or the MENU button.



① Current date and time

② Channel listings

③ Selected date and time

④ Programme name and broadcast time

⑤ Brief description of the programme

• The programme name, broadcast time and a brief description of the programme are displayed for the programme chosen from the channel listings.

Choosing Channel

1. Press "▲" or "▼" buttons to choose the channel.

2. Press OK button.

The selected channel is displayed.

Programme Reminders

You can easily set the reminder so that you will not miss the programme you want to watch.

1. Press "▲" or "▼" buttons to choose the channel.

2. Press the Red and Green buttons to change the time and Yellow and Blue buttons to change the date.

3. Press "◀" or "▶" buttons and then "▲" or "▼" buttons to choose the programme you want to watch.

4. Press the OK button.

The reminder icon will be displayed on the right side of the chosen programme name and the setting is completed.

When the TV is being watched, it automatically changes to the channel of the reminded programme when the start time of the scheduled programme is reached.

• This function does not work when the TV is turned off.

To cancel the reminder setting

Display the EPG screen, choose a programme which has the reminder icon, and press the OK button.

Note:

• Reminder events are ignored if any timer event is active at that time.

• You can not set the reminder for the programme which has already started.

• "No Information" is displayed for the programme or channel which does not have any information. You can not set the reminder for these programmes.

DISPLAYING THE SUBTITLES

With Digital terrestrial broadcasting (DVB-T), some programmes are broadcast with subtitles. Subtitles can be displayed when watching these programmes.

• Press the SUBTITLE button when watching Digital terrestrial broadcasting (DVB-T).

"Subtitle ON" appears at the top-left of the screen and, if programme has subtitles, the subtitles are displayed.

Subtitle ON

• When the SUBTITLE button is pressed again, "Subtitle OFF" appears and the subtitles disappear.

Subtitle OFF

OPERATING a JVC BRAND VCR or DVD PLAYER

VCR/DVD control buttons on the remote control will operate a JVC brand VCR or DVD player. Pressing a button that looks the same as the device's original remote control button has the same effect as the original remote control.

1. Set the VCR/TV/DVD Switch to the VCR or DVD position.

VCR:

When you are operating the VCR, set the switch to the VCR position.

• You can turn the VCR on or off with the ⏻ / I (standby) button.

DVD:

When you are operating the DVD player, set the switch to the DVD position.

• You can turn the DVD player on or off with the ⏻ / I (standby) button.

• You can also press the **MENU** or **TOP MENU** button and display the DVD disc menu screen, and then operate by pressing the **◀/▶/▼/▲** buttons**.**

2. Press the VCR/DVD control buttons to control your VCR or DVD player.

• If your device is not made by JVC, these buttons will not work.

• Even if your device is made by JVC, some of these buttons may not work, depending on the device you are using.

• You can use the ∧/∨ buttons to choose a TV channel that the VCR receives, or choose the chapter the DVD player plays back.

• Some models of DVD player use the ∧/∨ buttons for both operating the fast forward/backward functions and for choosing the chapter. In this case, the ◄◄/►► buttons do not work.

Note:

You can not turn the TV on or off when the VCR/TV/DVD switch is set to the VCR or DVD position.

When you turn the TV on or off, set the VCR/TV/DVD switch to the TV position.

DIGITAL TELETEXT

With Digital terrestrial broadcasting (DVB-T), in addition to pictures and sound, you can also watch digital teletext.

Digital teletext is sometimes broadcast at the same time as normal broadcasting.

1. Press the ☰ button.

The digital teletext information appears.

2. Operate it with the colour buttons, ◀/▶/▼/▲ buttons and OK button.

The operation method may differ depending on the contents of the digital teletext.

Follow the instructions displayed on digital teletext screen.

• When "Press SELECT" or similar message appears on the screen, press the **OK** button.

• When the ☰ (Text) button is pressed, the TV returns to television broadcasting.

• With Digital terrestrial broadcasting (DVB-T), in addition to digital teletext broadcasting at the same time as normal broadcasting, there are also channels with just digital teletext broadcasting.

• The aspect ratio when watching a channel with just digital teletext broadcasting is the same as the aspect ratio of the picture watched previously.

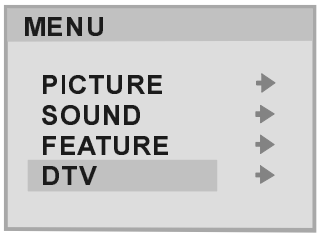
• When you press the ☰ (Text) button while subtitles are on, the subtitles are turned off. When you press the ☰ (Text) button again, the digital teletext screen is displayed.

DTV Menus

The DTV menu can only be shown when watching Digital terrestrial broadcasting. To display the DTV menu, do the following:

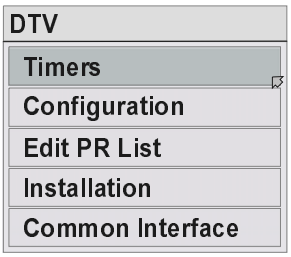
1. Press MENU button.

The menu appears.



2. Choose DTV and press ◀/▶ or OK button.

The DTV menu appears.



Timers (DTV Timer Recording)

By setting the timer, you can record a Digital terrestrial broadcasting (DVB-T) programme with a VCR connected to EXT.2 while you are out.

• Before using DTV timer recording, the VCR and TV must be connected correctly. For details, see "Peripheral Equipment Connections" on page 23.

• When you have a T-V LINK compatible VCR connected to EXT.2, all you need to do is set the TV timer settings and the programme will be recorded.

By using "Direct Rec" of the T-V LINK function, the Direct Rec commands are sent from the TV to the VCR to automatically start and end the recording. It is not necessary to set the timer on the VCR.

• When your VCR is not T-V LINK compatible, you also need to set the VCR timer settings to match the TV timer settings.

• The recording may not start and stop at exactly the right times for some programmes. It is recommended that you allow some leeway when setting the recording times.

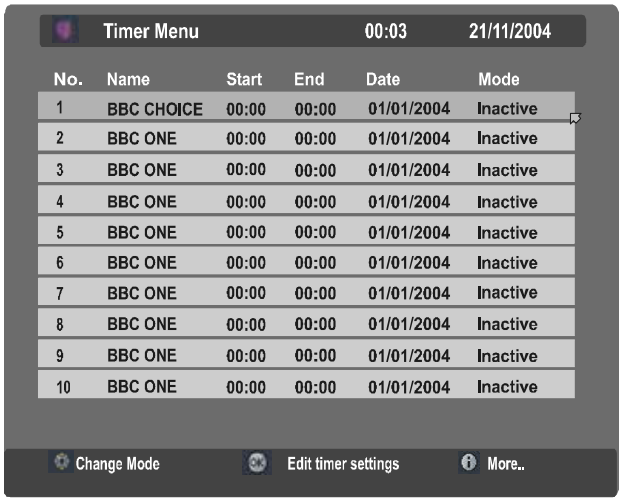
• Provided that the days and times are not the same, you can set up to ten timer settings.

• When subtitles are ON, the subtitles displayed with the broadcast will be recorded. When you do not want to record the subtitles, you need to turn OFF the subtitles settings beforehand (See "**Displaying the subtitles**" on **Page 10**).

• During DTV timer recording, you are unable to view the DTV menu.

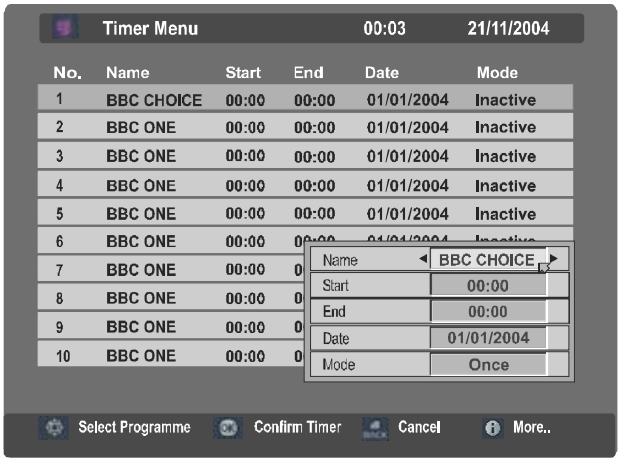
1. Choose Timers and press the OK button.

The TIMER MENU appears.


Timer Menu 00:03 21/11/2004
No. Name Start End Date Mode
1 BBC CHOICE 00:00 00:00 01/01/2004 Inactive
2 BBC ONE 00:00 00:00 01/01/2004 Inactive
3 BBC ONE 00:00 00:00 01/01/2004 Inactive
4 BBC ONE 00:00 00:00 01/01/2004 Inactive
5 BBC ONE 00:00 00:00 01/01/2004 Inactive
6 BBC ONE 00:00 00:00 01/01/2004 Inactive
7 BBC ONE 00:00 00:00 01/01/2004 Inactive
8 BBC ONE 00:00 00:00 01/01/2004 Inactive
9 BBC ONE 00:00 00:00 01/01/2004 Inactive
10 BBC ONE 00:00 00:00 01/01/2004 Inactive
Change Mode
Edit timer settings
More..

2. Press "▲" or "▼" buttons to choose the timer number, and then press the OK button.

The timer setting window appears.



3. Use the "▲" / "▼" buttons, number buttons and OK button to set the timer.

• When setting the start time and end time, input 1200 for 12:00 PM, 1500 for 3:00 PM and 0000 for 12:00 AM.

• Press BACK button anytime to cancel the timer settings.

Name:

Use the "◀" / "▶" buttons to choose the channel for which the timer is to be set.

Press the "▼" button.

Start:

Set the timer start time with the number buttons.

• When the "◀" / "▶" buttons are pressed, the input position moves.

Press the "▼" button.

End:

Set the timer end time with the number buttons.

• When the "◀" / "▶" buttons are pressed, the input position moves.

Press the "▼" button.

Date:

Set the date for the timer to work with the numbers.

• When the "◀" / "▶" buttons are pressed, the input position moves.

Press the "▼" button.

Mode:

Use the "◀" / "▶" buttons to choose the timer mode (Once/Daily/Weekly), and then press the **OK** button.

4. Prepare your VCR for recording

When recording on a T-V LINK compatible VCR:

1. Insert the videotape for recording into the VCR and set the recording mode.

2. Make sure the VCR is ready to receive Direct Rec commands from the TV.

3. Make sure VCR timer settings do not coincide with the TV timer settings.

• For details, see your VCR instruction manual.

When recording on a T-V LINK incompatible VCR:

1. Insert the videotape for recording into the VCR and set the recording mode.

2. Set the VCR recording timer settings.

3. Make sure that the start and end time match with the TV timer.

4. Set the VCR to record the signal from the external input that the TV is connected to.

• For details, see your VCR instruction manual.

When you have finished the step 4, you have set the timer.

When you are not watching TV, make sure the TV is in stand by.

WARNING :

Do not turn off the main power. The timer function will not work with the main power switched off.

When you are watching TV at the timer start time, a message appears on the screen to inform you the timer is about to start and the TV switches to the programme that the timer is set to.

• When performing timer recording with a T-V LINK compatible device, test the timer recording before you record the programme. There are some T-V LINK compatible recording device that will not correctly receive the Direct Rec command from the TV.

If the recording device does not operate when the recording start time is reached, it means VCR is not receiving the Direct Rec command from the TV. In this case, follow the instructions of "When recording on a T-V LINK incompatible VCR:".

While the timer is in operation:

• You can turn the TV on or off (Stand by).

WARNING: Do not turn off the main power.

• You can watch analogue terrestrial broadcasting channels or the pictures via an EXT terminal.

• Please note that any programme information that appears on the screen, such as when making changes to the Digital terrestrial broadcasting (DVB-T) channel picture, will be superimposed over the picture in the VCR recording.

• When you press the following buttons (ⓘ, AV, MENU, SUBTITLE, GUIDE, BACK, P∨ / P∧, number buttons) during recording, a message appears asking if you want to stop recording or not. Press **OK** button to stop recording or press "◀" / "▶" buttons to select "No" and **OK** button to continue recording.

Cancelling the timer setting

Display the TIMER menu and press the "▲" / "▼" buttons to choose which timer setting to cancel. Press the "◀" / "▶" buttons so that "Inactive" appears in the Mode column.

Reactivating the cancelled timer setting

Display the TIMER menu and press the "▲" / "▼" buttons to choose which timer setting to reactivate.

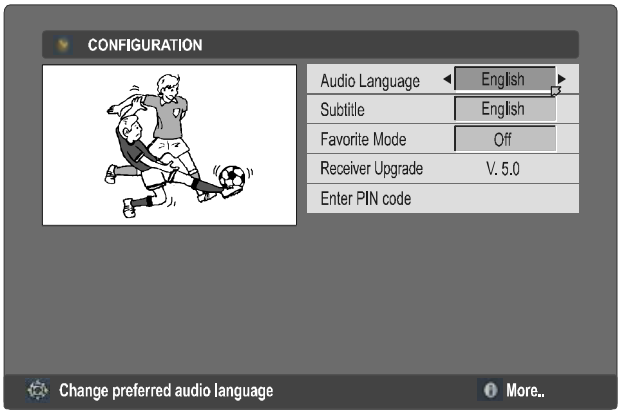
Press the "◀" / "▶" buttons so that "Active" appears in the Mode column.

Configuration

Set the basic setting when watching Digital terrestrial broadcasting (DVB-T).

Choose configuration and press the **OK** button.

CONFIGURATION appears.



- When the BACK button is pressed, the previous screen is returned to. When MENU button is pressed, the menu appears.
- When the ⓘ (Information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

Audio Language

With Digital terrestrial broadcasting (DVB-T), a number of languages can be broadcast at the same time. Choose language you want to listen when watching these broadcasts.

1. Press the "▲" / "▼" buttons and choose Audio Language.
2. Press the "◀" / "▶" buttons and choose the language.

   Language changes every time the button is pressed.

- If the selected language is not broadcast, the default language will be played.

Subtitle Language

With Digital terrestrial broadcasting (DVB-T), a number of subtitles can be broadcast at the same time. Choose the subtitle you want to display when watching these broadcasts.

1. Press the "▲" / "▼" buttons and choose Subtitle.
2. Press the "◀" / "▶" buttons and choose a subtitle language that appears when the SUBTITLE button is pressed.

Favourite Mode

Enable/disable the Edit PR List Favourites settings.

1. Press the "▲" / "▼" buttons and choose Favourite Mode.
2. Press the "◀" / "▶" buttons and choose ON or OFF.

On:

The Edit PR List Favourites settings are enabled.

When the P∨ / P∧ button is pressed, only the channels chosen in the Edit PR List favourites (those with the icon) can be chosen.

• For details on how to set your favourite channels, see "Setting the favourite channels" on page 15.

Off:

The Edit PR List Favourites settings are disabled.

When the P∨ / P∧ button is pressed, all the channels registered in the Edit PR List can be chosen.

Receiver Upgrade

Set the method to upgrade the Digital terrestrial broadcast (DVB-T) receiver software.

1. Press the "▲" / "▼" buttons and choose Receiver Upgrade, and press the OK button.

The setting window appears.

- The actual version may be different to the Receiver Upgrade version displayed above.

2. Press the "▲" / "▼" buttons and choose Automatic Download, and press the "◀" or "▶" buttons to choose Enable and Disable.

Enable (factory settings):

The Digital terrestrial broadcasting (DVB-T) software is automatically updated every day at 3:00 am. When enabled, the TV also searches for new software whenever it goes to standby.

Disable:

The Digital terrestrial broadcasting (DVB-T) software is not automatically updated.

Manually updating the Digital terrestrial broadcasting (DVB-T) information

Press the "▲" / "▼" buttons and choose Search for New Version, then press the **OK** button.

The Digital terrestrial broadcasting (DVB-T) information is updated.

In the future, there is a possibility that Receiver Update function may also be able to be used to update the Digital terrestrial broadcating (DVB-T) software and add new functions.

Enter PIN code

Choose Enter PIN code to change the PIN code for the Edit PR List menu's "Lock". The PIN code factory setting (how it is set when you purchase the television) is 0000.

1. Press the "▲" / "▼" buttons and choose Enter PIN code, and press the **OK** button.
2. Input the current PIN code.

   When you are making this setting for the first time, input 0000.

   When a PIN code has already been set, enter the correct PIN code.

   The PIN code setting window appears.
3. Press the number buttons to input a new PIN code (password).
4. Input the new PIN code (password) again in the Confirm box.

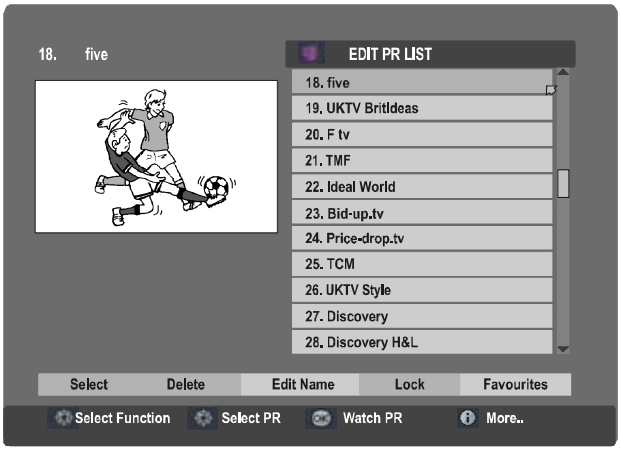
   "Pin code changed" appears.

   Your newly chosen PIN code is now set. You will now need to use the PIN code (password) you choose. Here to lock or to unlock the Edit PR List's "Lock".

Edit PR List

Choose Edit PR List and press the **OK** button.

EDIT PR LIST appears.



The Edit PR List can be used to do the following:

- delete registered channels
- edit channel names.
- lock channels so that they can not be watched by children.
- set Favourites so that you can easily choose from only the channels you often watch.
- Sometimes you may notice a drop in picture quality while watching your programme in the quarter-screen. This is not a fault.

- When the BACK button is pressed, the previous screen is returned to. When the TV/DTV or MENU button is pressed, the menu disappears.
- When the ⓘ (information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

Here, you can preview any channel stored by the receiver before viewing it full screen. The complete list of channels is displayed in pages of 11 channels at a time, with their channel list number and a favourite channel icon if appropriate.

Choosing a channel

The chosen channel is shown on the quarter-screen.

1. Press the "◀" / "▶" buttons and choose Select on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose a channel, and then press the **OK** button.

   The picture of the chosen channel is shown on the quarter-screen.

Deleting a channel

1. Press the "◀" / "▶" buttons and choose Delete on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose the channel to be deleted, and then press the OK button.

   The channel deletion confirmation window appears.
3. Choose Yes and press the **OK** button.

   The chosen channel is deleted.

   • If you do not want to delete the chosen channel, choose NO and press the **OK** button.

   • Perform "Installation" (see page 15) to re-register a channel that you have deleted.

Editing a channel name

1. Press the "◀" / "▶" buttons and choose Edit Name on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose the channel to be edited, and then press the **OK** button.

   The EDIT window appears.
3. Press the "▲" / "▼" buttons and choose a character, press the "◀" / "▶" buttons to move the cursor and edit the name, and then press the **OK** button.

   The edited channel appears in the Edit PR List.

Locking a channel

When there is a channel you do not want your children to watch, you can lock the channel.

1. Press the "◀" / "▶" buttons and choose Lock on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose the channel to be locked, and then press the **OK** button.

   The Enter PIN code input window appears.

3. Press the number buttons to input the correct PIN code.

   If you have not changed the PIN code in the CONFIGURATION menu's "Enter PIN Code" (see page 14), input the PIN code you chose.

   The lock icon appears next to the channel name in the Edit PR List.

   When a locked channel is chosen, the Enter PIN code input window will appear. If the correct PIN code is input, the picture appears.

   • When you forget the PIN code for the "Lock", you can unlock locked channels by performing Automatic Search (see INSTALLATION).

Setting the favourite channels

If only channels that you often watch are set as favourite channels, you can choose from just those channels by pressing **P∨** / **P∧** .

• After setting the favourite channels, check the "Favourite Mode" in "Configuration" (see page 13) is set to ON.

1. Press the "◀" / "▶" buttons and choose Favourites on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose the channel to be registered as a favourite channel, and then press the **OK** button.

   The favourite icon (☺) appears on the right side of the chosen channel.

When you leave the Channel List screen by pressing "MENU", the channel showing on the quarter screen is selected for normal viewing on the whole screen.

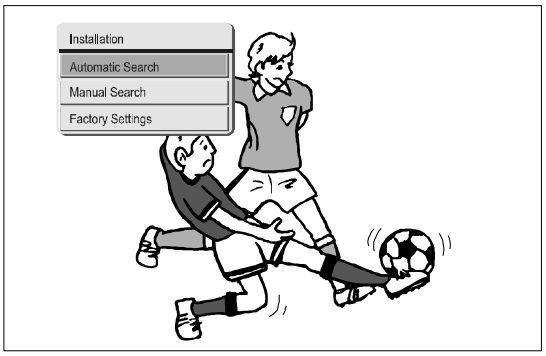
Installation

Although your TV will not lose its settings or stored channels when switched off, you may wish to re-install the programs because you have moved to a different area with different broadcast frequencies, you wish to reinstate a channel previously deleted from the channel list, or you want to watch new channels which have started broadcasting.

Display the DTV Menu and using the "▲" or "▼" buttons, highlight the Installation line and press **OK** to display the Installation Menu.

The Installation menu appears.

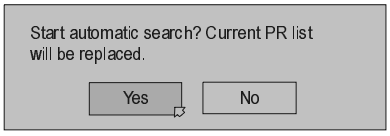
You can either select Factory Settings, effectively re-setting the receiver to its factory setting condition, or just search for channels.



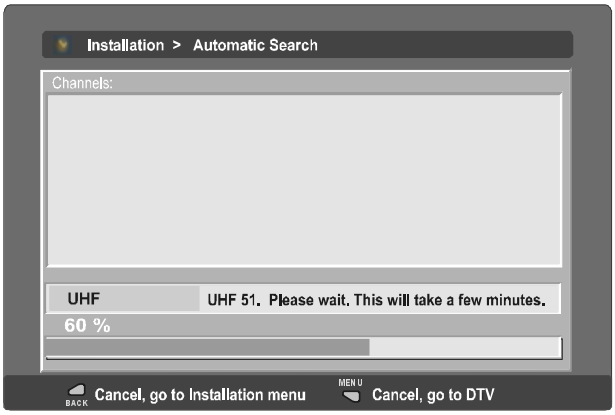
Automatic Search:

The receiver can search for channels automatically (searching all the broadcast frequencies for free-to-air channels).

To perform Automatic search, Select Automatic Search with the "▲" or "▼" buttons and press **OK**. A warning message is displayed.

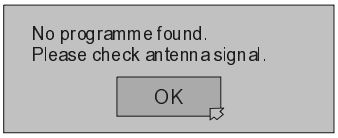


This starts the automatic tuning process and searches through all the available broadcast frequencies for free-to-air channels.

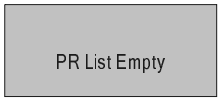

Installation > Automatic Search
Channels:
UHF
UHF 51. Please wait. This will take a few minutes.
60 %
BACK Cancel, go to Installation menu
MENU Cancel, go to DTV

Previous channels will be replaced on automatic search.

If no digital terrestrial television broadcasts are found, the TV will display a message:

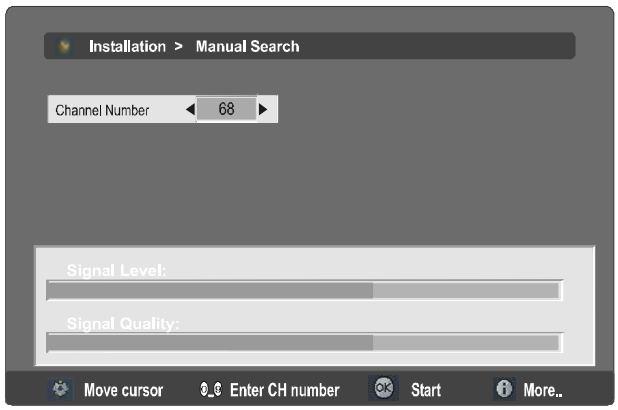


When "OK" button is pressed, following message will appear on the right bottom side of the screen:



Manual Search:

This is for searching for digital channels on a single broadcast frequency. The frequency channel number (21-68) is entered in the box at the top left of the screen and the received signal level and signal quality can be observed on the two bar graphs at the bottom. When **OK** is pressed, the TV searches that frequency and display a list of the channels found.



Hint

The bar graphs of signal quality and signal level give a good indication of whether any channels are likely to be found. If only the signal level graph shows a high value then it is likely that an analogue channel occupies that broadcast frequency. If the signal quality bar is high as well then it is a digital frequency and digital channels will probably be found.

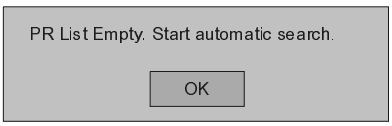
Again, channels which duplicate those already in the channel list are ignored. However, the manual channel search will find all channels on the broadcast frequency.

When either search is finished, press the MENU button to return to normal broadcast viewing, to watch the new digital terrestrial television channels found.

Factory Settings:

To reset the TV, highlight the Factory Settings line in the menu and press **OK**. A warning screen is displayed in case of accidental operation.

Highlight the YES button with the "◀" or "▶" button and press **OK** to erase all the channels and settings. A message will be displayed on the screen.



• Press the **OK** button to start the automatic search**.**

• When the automatic search has finished, the EDIT PR LIST menu appears.

Common Interface

It is required to subscribe to a pay channel company to view the pay channels of the Digital Terrestrial broadcasting.

Obtain the Conditional Access Module (CAM) and the Viewing card by subscribing to a pay channel company, then insert those to the Television using the following procedure.

1. Switch off the TV and unplug from the mains.

2. Insert the CAM, then Viewing Card to the slot that is located in the terminal cover at the left-hand side of the TV (from front view).

• The CAM should be correctly inserted, it is impossible to insert fully if reversed. The CAM or the TV terminal may be damaged if the CAM is forcefully inserted.

3. Connect the TV to the mains supply, switch on and then wait for few moments until the card is activated.

• Some CAMs may require the following set up. Please set the CAM by entering the DTV menu, Common Interface then pressing **OK** button. (CAM set up menu is not displayed when it is not required.)

• To see the viewing contract information, press **MENU**, Select DTV and Press **OK**, then Select Common Interface and press **OK**.

• When no module is inserted, "**No CI Module**" appears.

• Refer to the module instruction manual for details of the settings.

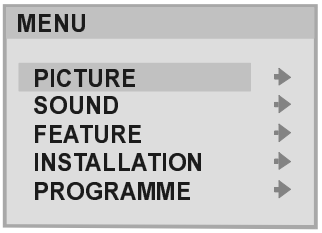
Setting the TV

Menu System

Your TV's analogue part has been designed with a menu system, to provide an easy manipulation of a multi-function system. The TV is controlled by choosing the commands, which are displayed on the screen.

MAIN MENU

Press the "**MENU**" button. The **MENU** will be displayed in the middle on the screen.

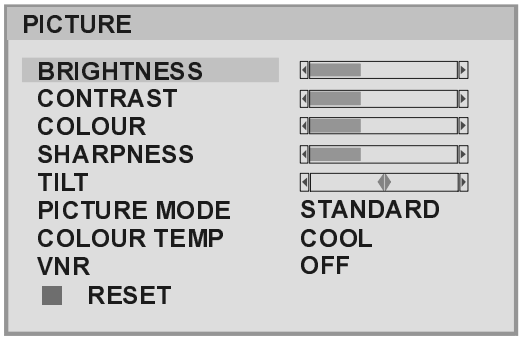


To select a sub-menu use "▲" or "▼" button, and press "◀" or "▶" button or directly press "**OK**" button.

Use the "**MENU**" button to go back to the previous programme when the menu does not appear on the screen.

Picture Menu

Press "**MENU**" button, now you are in main menu. In the Main menu, select "**Picture**" using "▲" or "▼" button, then enter the Picture menu by pressing "◀" / "▶" or "**OK**" button.



Setting Brightness

- As you enter the picture menu, Brightness will be the first selected option.
- Press "▶" button to brighten the picture.
- Press "◀" button to darken the picture.

Setting Contrast

Contrast is the difference and distribution of light and dark tones in an image.

- Using "▲" or "▼" button select Contrast.
- Press "▶" button to increase contrast level.
- Press "◀" button to decrease contrast level.

Setting Colour

- Using "▲" or "▼" button select Colour.
- Press "▶" button to increase colour saturation.
- Press "◀" button to decrease colour saturation.

Setting Sharpness

- Using "▲" or "▼" button select Sharpness.
- Press "▶" button to sharpen the picture.
- Press "◀" button to soften the picture.

Setting Tilt

This function is used for tilt correction of the picture.

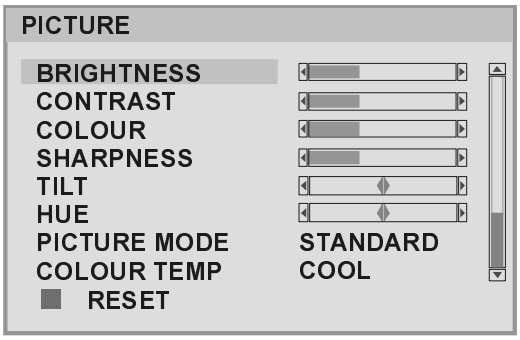
- Using "▲" or "▼" button select Tilt.
- Press "▶" button to rotate the picture to the right.
- Press "◀" button to rotate the picture to the left.

Setting Hue (In AV mode only)

(During Playback NTSC system, this will appear in AV mode only when NTSC video source is applied. Otherwise, HUE option is invisible in Picture menu.):

- Using "▲" or "▼" button select Hue.
- Press "▶" button to increase the green tones.
- Press "◀" button to increase the red tones.

Center value is indicated with two reciprocal arrows.



Setting Picture Mode

This item is used to change the picture mode. By pressing "◀" or "▶" button you may select one of these options: **STANDARD, SOFT** and **BRIGHT**.

You can also set the Picture Mode by pressing the Blue button directly.

Setting Colour Temp

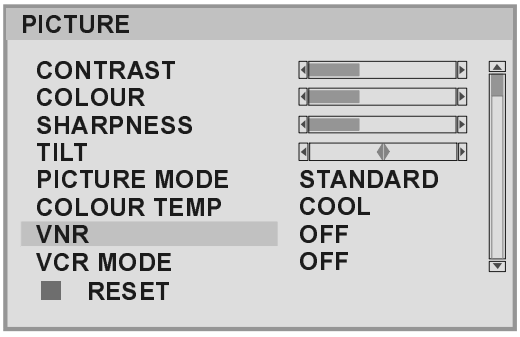
This item is used for white colour tint adjustment. By pressing "◀" or "▶" button you may select one of these options: **COOL**, **NORMAL, WARM**.

Setting VNR (Video Noise Reduction)

This item is used to reduce the image noise and improve the picture quality at weak signals.

- Using "▲" or "▼" button select VNR.
- Press "◀" or "▶" button to set VNR level to **OFF**, **MIN**, **AUTO** or **MAX.**

AUTO adjusts the VNR level to **OFF**, **MIN** or **MAX** automatically according to the intensity of the noise.



Setting VCR Mode (In AV mode only)

- Using "▲" or "▼" button select VCR Mode.
- When you watch a picture from your VCR and the picture is unstable, you may improve it by changing the "**VCR MODE**" setting from "**ON**" to "**OFF**".

Reset

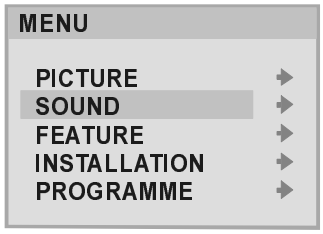
Press BLUE button to reset the picture modes to factory default settings.

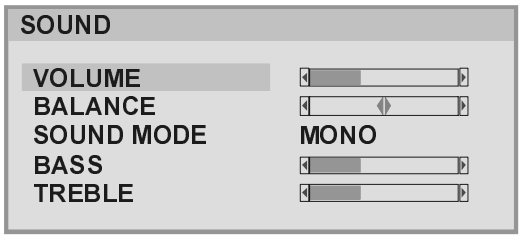
To Store the Settings

In the Picture Menu, all settings are stored automatically.

Sound Menu

• Press "**MENU**" button, now you are in **MENU.** In the **MENU**, select **SOUND** using " ▲ " or " ▼ " button, then enter the sound menu by pressing " ◀ " or " ▶ " button.





Setting Volume

As you enter the sound menu, Volume will be the first selected option.

• Press "▶" button to increase volume.

• Press "◀" button to decrease volume.

Or you can directly change the volume settings using "◢ **+**" (to increase) or "**-** ◢" (to decrease) button.

Setting Balance

It allows adjusting the distribution between the left and right speakers.

• Using " ▲ " or " ▼ " button select Balance.

• Press " ▶ " button to change balance to the right.

• Press " ◀ " button to change balance to the left.

When balance control is in mid position, the cursor is displayed with two reciprocal arrows.

Selecting Sound Mode

• Using " ▲ " or " ▼ " button select Sound Mode.

• Press " ◀ " or " ▶ " button to change Mode.

You can select **MONO**, **STEREO, DUAL-I** or **DUAL-II** mode, only if the selected channel supports that mode.

In case of bilingual broadcast (Dual Sound), you can select original or dubbed language using mode option.

Setting Bass

You can adjust the low tone of the sound.

• Using " ▲ " or " ▼ " button select Bass.

• Press " ▶ " button to increase bass level.

• Press " ◀ " button to decrease bass level.

Setting Treble

You can adjust the high tone of the sound.

• Using " ▲ " or " ▼ " button select Treble.

• Press " ▶ " button to increase treble level.

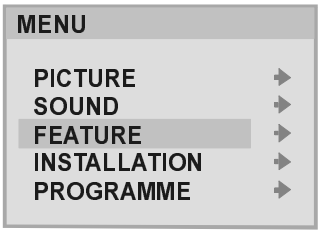
• Press " ◀ " button to decrease treble level.

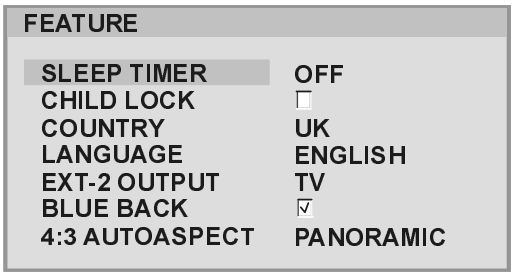
To Store the Settings

In the Sound Menu, all settings are stored automatically.

Feature Menu

• Press "**MENU**" button, now you are in **MENU**. In the **MENU**, select **Feature** using " ▲ " or " ▼ " button. Then enter the **Feature** menu by pressing " ◀ " or " ▶ " button.





Sleep Timer

As you enter the **Feature** menu, **Sleep Timer** will be the first selected option. Use " ◀ " or " ▶ " button to change the Sleep Timer values between **OFF, 10, 20, 30, ..., 110** and **120**.

If sleep timer is activated, at the end of the selected time, the TV goes automatically to stand-by mode.

You can also set the Sleep Timer by pressing the Yellow button directly.

Child Lock

You can use this feature to prevent children turning the TV on or changing programs or adjustments etc. without remote control.

The **Child Lock** feature can be set by " ◀ " or " ▶ " button to either **ON** or **OFF**. When **OFF** is selected, there will be no difference in the operation of your TV. When **ON** is selected, the TV can only be controlled by the remote control handset. In this case, the front panel buttons (except the Power On/Off button) will not work.

If Child Lock is ON, when one of the front panel buttons (except power button) is pressed, "**CHILD LOCK**" OSD is seen on the screen.

Selecting Country

• Using " ▲ " or " ▼ " button select Country.

• Press " ◀ " or " ▶ " button to select the desired country settings.

Selecting Language

Menu language can be selected by pressing " ◀ " or " ▶ " button on **Language** item.

Ext-2 Output

• Using " ▲ " or " ▼ " button select Ext-2 Output.

• Press " ◀ " or " ▶ " button to select the source which will be given. From Ext-2 output, either **EXT-1, DTV, EXT3** or **TV** can be selected.

Blue Back

You can set the TV to automatically change to a blue screen if the signal is weak or absent, or when there is no input from an external device.

The **Blue Background** feature can be turned on or off by pressing " ◀ " or " ▶ " button.

4:3 Auto Aspect

You can choose one of three Zoom modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the Zoom mode for the normal picture (4:3 aspect ratio).

• Using " ▲ " or " ▼ " button select 4:3 Autoaspect.

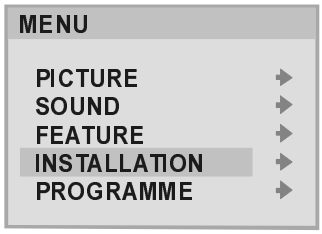
• Press " ◀ " or " ▶ " button to select a Zoom mode.

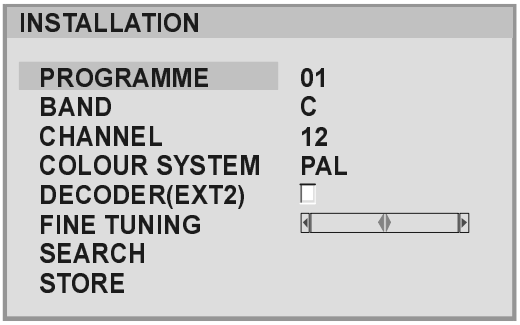
To Store Settings

In **Feature** menu all settings are stored automatically.

Installation Menu

• Press "**MENU**" button, now you are in **MENU**. In the **MENU**, select **INSTALLATION** using " ▲ " or " ▼ " button. Then enter the Installation menu by pressing " ◀ " or " ▶ " button.





Selecting Programme

To select programme number, you can use " ◀ " or " ▶ " button or Digit Buttons.

Selecting Band

BAND, can be selected either "C" or "S" by pressing " ◀ " or " ▶ " button.

Selecting Channel

CHANNEL can be changed by " ◀ " or " ▶ " button or Digit Buttons.

For band C,

01 - 83, WEST EUROPE.

01 - 12, 21 - 69, EAST EUROPE .

01 - 17, 21 - 73, UK.

01 - 76, FRANCE.

04 - 09, FRANCE 2.

For band S,

01 - 41, for all channel tables.

Selecting Colour System

Using " ◀ " or " ▶ " button on **Colour System**, you can change the colour system to **PAL, SECAM** or **AUTO**.

Note: In EXT mode, you can choose NTSC 3.58 and NTSC 4.43 as well.

Selecting Decoder (EXT2)

You can use this mode to connect any decoder to your TV.

• Press the " ◀ " or " ▶ " buttons to turn it on or off.

When you turn Decoder on, EXT-2 output will be chosen as TV mode only and any scrambled channels will be unscrambled through decoder connected your TV via EXT-2 output.

Decoder setting should be stored separately for each programme.

Selecting Fine Tuning

You can use the Fine Tuning process for fine adjustment (after coarse adjustment), if you are not happy with the image on the screen.

Use " ◀ " or " ▶ " button on **FINE TUNING** item, until getting the best image on the screen.

In Channel option, normally the Fine Tuning cursor is placed at the middle on the slider, and this is indicated with two reciprocal arrows.

Selecting Search

• Using " ▲ " or " ▼ " button select Search item.

• Press " ◀ " or " ▶ " button in order to start channel search. "**SEARCHING...**" is displayed during the search process. Searching is stopped as soon as a station is found or " ▲ ", " ▼ ", " ◀ ", " ▶ " buttons are pressed.

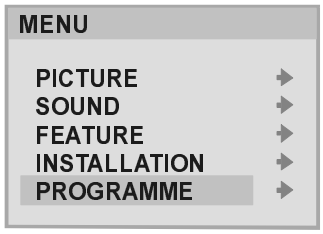
To Store Settings

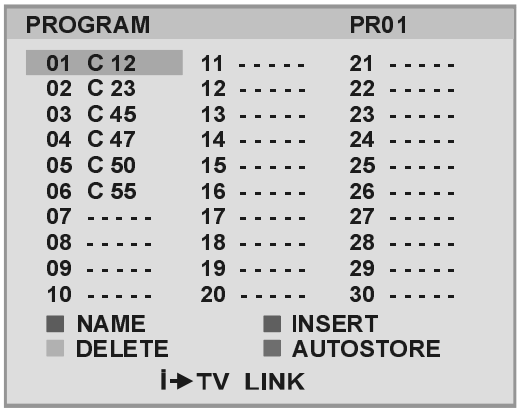
• Using "▲" or "▼" button select Store.

• Press "◀" or "▶" button to store Installation menu settings.

Programme Menu

• Press "**MENU**" button, now you are in **MENU**. In the **MENU**, select **PROGRAMME** using "▲" or "▼" button. Then enter the Program menu by pressing "◀" or "▶" button.





Moving cursor to four directions you can reach 30 programmes in the same page. You can scroll the pages up or down by pressing the navigation buttons.

By cursor action, programme selection is done automatically. Selected programme is displayed with "**HIGHLIGHTED**" characters.

Programme Number is between 00 and 99. Programme Name has a name string with 5 characters. After autostore process the Programme Names are set to:

• Channel search "**C01**" or "**S01**" (band and channel number), as default.

At the bottom of the menu there is a programme sort functions section. Each function is activated by a colour button. **NAME,** changes the programme name. **DELETE,** deletes undesired programmes. **INSERT,** inserts a programme into another programme's position. By selecting **AUTOSTORE**, Autostore menu will be available.

NAME:

You can change the name of a selected programme by pressing the **RED** button (**NAME**). First letter of the selected programme is displayed with a highlighted character. To change that letter "▲" or "▼" button can be used, and to select the other letters, "◀" or "▶" button can be used.

After changing the name, press the **RED** button to store the new name or press the **BLUE** button to cancel.

INSERT:

When the **GREEN** button (**INSERT**) is pressed, "**NAME**", "**AUTOSTORE**" and "**DELETE**" functions are erased and the selected programme is displayed with green characters. Use the navigation buttons to select another programme's position. When the **GREEN** button is pressed again, the first selected programme will be inserted into the position of the current selection.

Press the **BLUE** button to cancel the activated "**INSERT**" process.

DELETE:

Press the **YELLOW** button to select a programme that you want to delete. When the **YELLOW** button is pressed again the selected programme will be deleted.

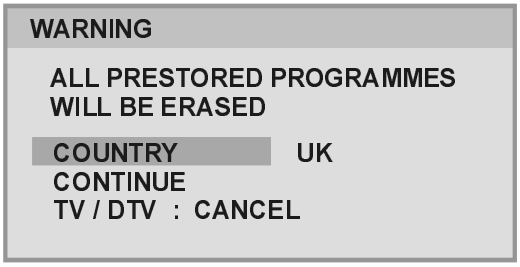
Pressing the **BLUE** button cancels the activated "**DELETE**" process.

AUTOSTORE:

(A.P.S. (Automatic Programming System))

A.P.S. searches and sorts all channels and stores them automatically on your TV, according to the transmission of programme systems in your area.

To enter Autostore menu, press the **BLUE** button.

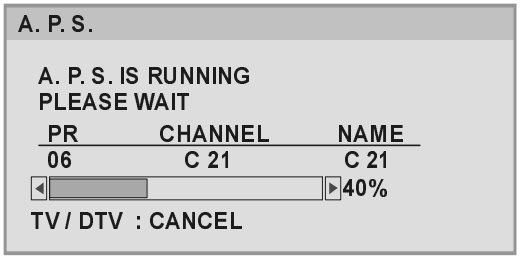


• If you do not want to start **A.P.S.**, you can cancel it by pressing the "TV/DTV" button on your remote control.

• First select your country by pressing "◀" or "▶" button. This will affect the sort process in APS.

• To select "**Continue**" use "▲" or "▼" button. By pressing "◀" or "▶" button start the **A.P.S.**

• When you start **A.P.S.** the following window will appear on the screen.



After APS is finalized, a programme list will appear on the screen. In the programme list you will see the programme numbers and names assigned to the programmes.

If you do not accept the locations and / or the programme names of programmes, you can change them in Programme menu.

Other Features

TV Status

Programme Number, **Programme Name** (or **EXT**), (they are displayed on the upper left of the screen). The **sound indicator** is displayed with them too. They are displayed after programme change for 3 seconds.

Sound Indicator

The alternatives of the indicator are Mono, Stereo, Dual I and Dual II. This indicator is displayed under the programme number indicator on the screen.

MONO

In Mono broadcast or in forced-mono (for stereo broadcast).

STEREO

In Stereo broadcast.

DUAL – I

If dual broadcast detected. Dual I is selected in default and also can be selected after Dual II by Remote Control.

DUAL – II

If Dual II is selected by Remote Control.

Hyper Sound

By pressing the "⊕⊕" button on your remote control, Pseudo/Spatial effect can be turned on or off. In Mono transmission the left and right channels will be added at left channel and dummy stereo effect will be introduced to end-user.

In stereo transmission it yields a phase difference between left and right channels.

Mute Indicator

It is placed in the upper middle of the screen when enabled, and it stays there until it is disabled.

To cancel mute, there are two alternatives; the first one is by pressing the "🔇" button, this volume is set to the preceding value, and the second one is increasing or decreasing the volume level.

No-Signal Detection (TV mode)

If no valid signal is detected, it takes 5 minutes to switch to the Stand-By mode unless any signal detected or any Remote Control command is accessed.

After a Remote Control command (if No-Signal Timer is active) the timer stops and if no signal detected again the timer is initialized to 5 minutes and starts 3 seconds later again to count down.

It is not valid in EXT modes.

Volume Bar

It is displayed in the lower middle of the screen. When a volume command is received (pressing **"◢ +"** or **"◢ -"** by Remote Control or Control panel at the right side of the TV) and no menu is active, it stays on the screen for 3 seconds, after the last volume command or until another command is received in between.

EXT Modes

By pressing the "**AV**" button you can switch your TV to EXT modes (except being in Teletext). Pressing this button consecutively will switch the TV in one of the optional EXT modes: **EXT1, EXT2, EXT2 S** and **EXT3**.

In order to quit the EXT mode press any digit buttons or **"P∨"** / **"P∧".**

Zoom Modes

Zoom mode can be changed by pressing the **ZOOM** button. You can change the screen size according to the picture aspect ratio. Select the optimum one from the following **ZOOM** modes.

AUTO:

When a **WSS (Wide Screen Signalling)** signal, which shows the aspect ratio of the picture, is included in the broadcast signal or the signal from an external device, the TV automatically changes the **ZOOM** mode to **PANORAMIC**.

If a WSS signal is not included, the picture is displayed according to the **ZOOM** mode set with the 4:3 AUTOASPECT function.

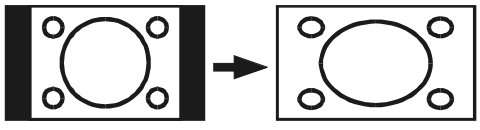
- For details of the 4:3 AUTOASPECT function, see page 19.
- When the **AUTO** mode does not function correctly due to poor **WSS** signal quality or when you want to change the **ZOOM** mode, change to another **ZOOM** mode manually.

Using the different screen formats

Press the **ZOOM** button to select different modes: Full, Auto, Regular, Panoramic, 14:9 Zoom, 16:9 Zoom, 16:9 Zoom Subtitle modes. In some modes, press "▲" or "▼" button to move the picture up or down.

FULL:

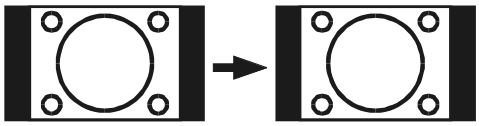
This uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.



- For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the **FULL** mode to restore the picture to its original shape.

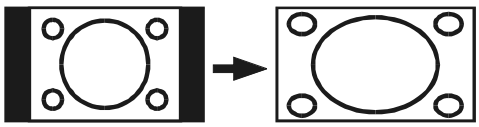
REGULAR:

Use to view a normal picture (4:3 aspect ratio) as this is its original shape.



PANORAMIC:

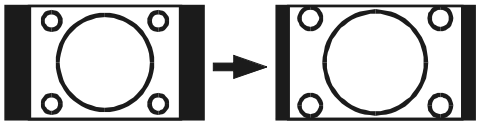
This stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the screen, without making the picture appear unnatural.



The top and bottom of the picture are slightly cut off.

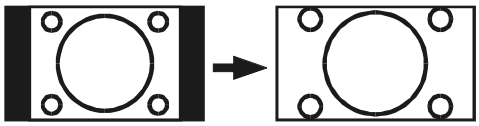
14:9 ZOOM:

This zooms up the wide picture (14:9 aspect ratio) to the upper and lower limits of the screen.



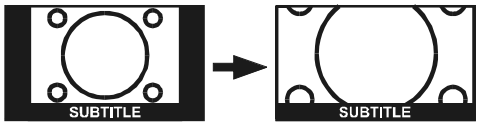
16:9 ZOOM:

This zooms up the wide picture (16:9 aspect ratio) to the full screen.



16:9 ZOOMS (SUBTITLE):

This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.



Analogue Teletext

Teletext is an information system that displays text on your TV screen. Using the Teletext information system you can view a page of information on a subject that is available in the list of contents (index).

On screen display is not available in text mode.

Contrast, brightness or colour control is not available, but volume control is available in text mode.

To operate Teletext

- Select a TV station on which Teletext is being transmitted.
- Press (TELETEXT) "▤" button. Usually the list of contents (index) is displayed on the screen.

To select a page of Teletext

- Press the appropriate digit buttons for the required Teletext page number.

The selected page number is displayed at the top left corner of the screen. The Teletext page counter searches until the selected page number is located, so that the desired page is displayed on the screen.

- Press "P∧" button to move the Teletext screen forward one page at a time.
- Press "P∨" button to move the Teletext screen backward one page at a time.

To Select Index Page

- To select the page number of the index (generally page 100), press "▤" button.

Searching for a teletext page while watching TV

- In the Teletext mode pressing "⊠" button will switch the screen to the TV mode. In the TV mode enter a page number using digit buttons. As you enter last digit of page number, "▤" sign will replace the page number and flash until the entered page number is found. Then the page number will replace "▤" sign again. Now you can display this teletext page by pressing "⊠" button.

To Select Double Height Text

- Press "⇕" button for the top half of the information page to be displayed in double height text.
- Press "⇕" button again for the bottom half of the information page to be displayed in double height text.
- Press "⇕" button once more for the full page of normal height text.

To Reveal “concealed” Information

- Pressing “?” button once will reveal answers on a quiz or games page.
- Pressing “?” button again will conceal the revealed answers.

To Stop Automatic Page Change

The teletext page you have selected may contain more information than what is on the screen; the rest of the information will be displayed after a period of time.

- Press “⊟” button to stop the automatic page change.
- Press “⊟” button again to allow the next page to be displayed.

To Select a Subcode Page

Subcode pages are subsections of long Teletext pages that can only be displayed on the screen one section at a time.

- Select the required Teletext page.
- Press “⏲” button.
- Select the required subcode page number by pressing four digit buttons (e.g. 0001).
- If the selected subcode page is not displayed in a short time, press “⊠” button. TV programme will be displayed on the screen.
- Teletext page number will be displayed on the upper left corner of the screen when the selected page is found.
- Press “⊠” button to display the selected Teletext page.

To exit Teletext

- Press “▤” button. The screen will switch to TV mode.

Fastext and Toptext

Your TV supports the 7 page Teletext system. When the page number of any of the 7 pages in memory is entered, the system will not search for the requested page; instead it will display the page automatically.

- Press “P∧” button to move the Teletext screen forward one page at a time.
- Press “P∨” button to move the Teletext screen backward one page at a time.

For Fastext and Toptext

The subject-heading for the information may have a particular colour.

- Press an appropriate **RED**, **GREEN**, **YELLOW** or **BLUE** button in order to reach the relevant page quickly.

For TOPTEXT

If Toptext transmission is present, colour coded buttons will appear in status row.

If Toptext transmission is not present, status row will not appear.

In Toptext mode the “P∧” or “P∨” commands will request the next or previous page respectively. If Toptext transmission is not available, in case of operation of these commands, wraparound occurs. For example page 100 appears to be one greater than page 199.

Toptext has a special page called HITLIST which can be displayed by pressing the “i” button. Use colour buttons on HITLIST page to select a line which will link you to another teletext page.

To use the Favourite Page List mode

You can store the numbers of your favourite teletext pages and call them up quickly using the colour buttons.

- Press **F.T/L** button to go into the list mode. The page numbers you have stored are displayed at the bottom of the screen.
- Press the number buttons to enter the page number to be stored.
- Press the ◇ (Store) button. Then the four page numbers will be highlighted.
- Press a colour button to choose a position. Then the four page numbers will blink white to show that they are stored in memory.

To call up a stored page:

- Press **F.T/L** button to enter the List mode.
- Press a colour button having a stored page.

To exit the List mode:

- Press the **F.T/L** button again.

Peripheral Equipment Connections

There is a wide range of audio and video equipment that can be connected to your TV.

Connection diagrams at the end of this section show you where the different equipment should be connected at the back side of the TV.

Via the Euroconnector

Your TV set has 2 Euroconnector sockets. If you want to connect peripherals (e.g. video, decoder, etc.) which have Euroconnectors, to your TV, use **EXT.1 or EXT.2** input.

If an external device is connected via Euroconnector sockets, TV is switched to AV mode automatically. In this case if both sockets are connected, **SCART1** has the precedence.

T-V LINK compatible VCR

Be sure to connect the T-V LINK compatible VCR to the **EXT.2** terminal. If not, the T-V LINK function will not work properly.

- When connecting a T-V LINK compatible VCR to the EXT.2 terminal, be sure to connect the decoder to the VCR. If not, the **T-V LINK** function may not work properly. And then set the **Decoder(EXT2)** (see page 19) function for the channel to **ON** to unscramble a scrambled channel.

RGB mode

If an equipment can output the **RGB** signals, connect it to the **EXT.1** terminal.

EXT2S Mode

If the equipment connected to your TV set supports S-Video (Y/C) output from Euroconnector, you can have a better picture quality by selecting **EXT2S** mode and connecting your equipment to the **EXT.2 (EXT2S)** terminal of TV. See your equipment's booklet to check if your equipment has such feature.

Via the RCA jacks

If you have an equipment (such as a Camcorder) which has the RCA jacks, connect it to the **EXT3** terminal with the video and audio cables.

Via the ANT (aerial) socket

If your equipment does not have an Euroconnector or RCA jacks, connect it to the TV with an aerial cable. For details, see the manual provided with the equipment.

- To store the test signal that comes from the equipment, see "**Installation Menu**" on **page 19** and store it to the program number 0. You can watch images from that equipment to select the program number which you stored the test signal.

Decoder

Cable TV offers you a wide choice of programmes. Some of them are free, others are to be paid for by the viewer. This means that you will need to subscribe to the broadcasting organisation whose programmes you wish to receive. This organisation will supply you a corresponding decoder unit to allow the programmes to be unscrambled.

For further information ask your dealer. See also the booklet supplied with your decoder.

Connect a decoder with an aerial socket to the TV

- Connect the aerial cable.

Connect a decoder without an aerial socket to the TV

- Connect the decoder to your TV with a eurocable (RCA Jack Cable) to **EXTERNAL** (RCA Jack). When your decoder has a Euroconnector / RCA Jack you can obtain better picture quality if you connect a eurocable (RCA Jack Cable) to **EXTERNAL** (RCA Jack).

TV and Video Recorder (VCR)

- Connect the Video Recorder to the ANT (antenna input) socket of the TV with the aerial cable.
- Connect the Video Recorder to the **EXT.1** or **EXT.2** terminal with the SCART cable.

NTSC Playback

Connect a NTSC video recorder to a terminal. Then press "**AV**" button to select the corresponding AV mode.

NTSC 3.58/4.43 system is detected automatically in AV mode.

Camera and Camcorder

To connect to the EXT3 (Front-AV) terminal

Connect your camera or camcorder to the back side of your TV.

- Connect your equipment to the TV via **VIDEO** (yellow), **AUDIO R** (red) and **AUDIO L** (white) inputs. You should connect the jacks to the input in the same colour.

Connect the decoder to the video recorder

Some video recorders have a special euroconnector for decoder.

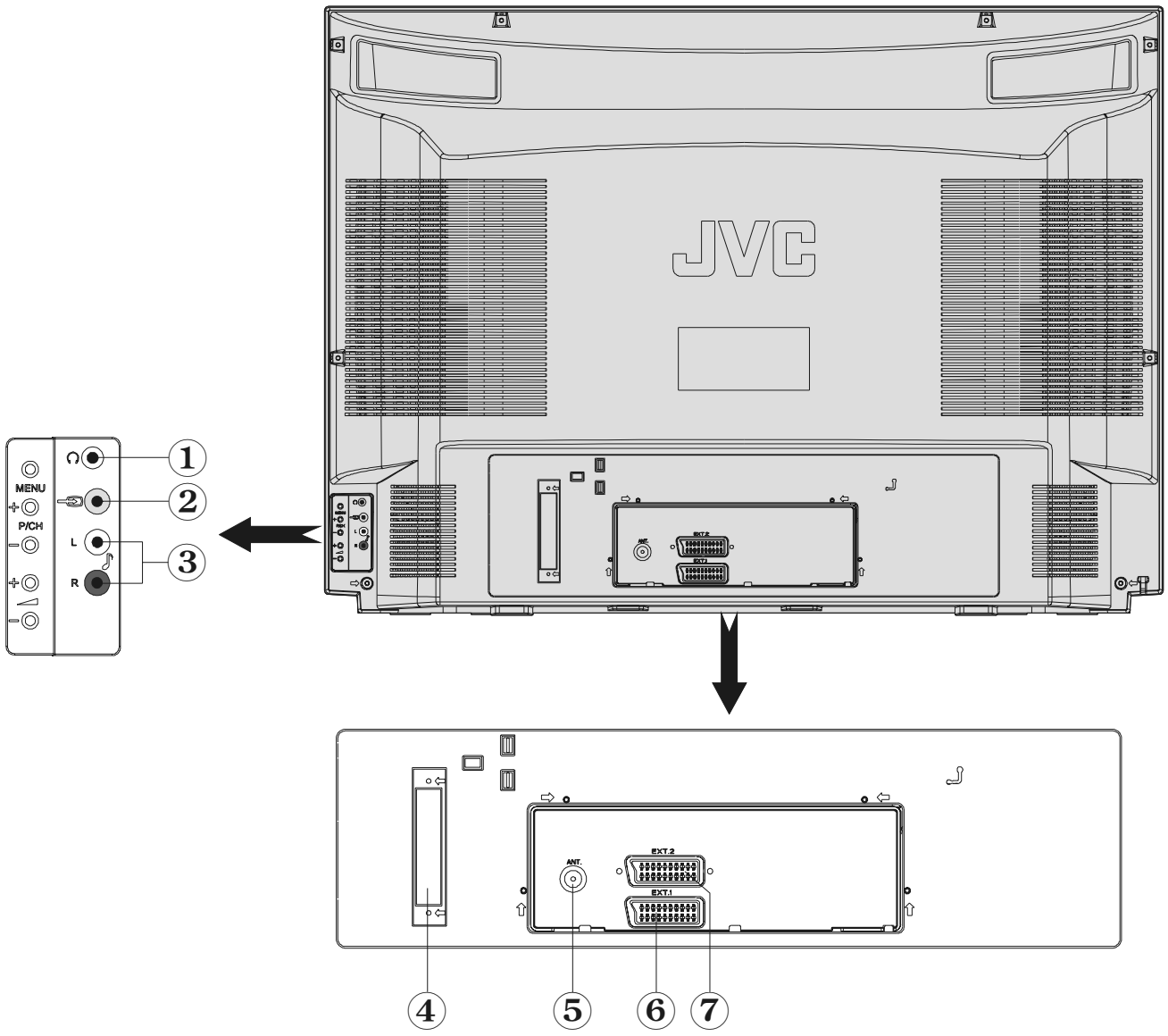
- Connect a eurocable to the euroconnector of your decoder and to the special euroconnector of your video recorder. See also the handbook of your video recorder.
- To connect your video recorder to the TV, see TV and Video Recorder section.

If you want to connect more equipment to your TV, consult your dealer.

Connecting Headphones

Use the stereo headphone socket on the right side of your TV, to connect headphones.

Rear Panel



① Headphone

② Video Input

③ Audio Input (L, R)

EXT3

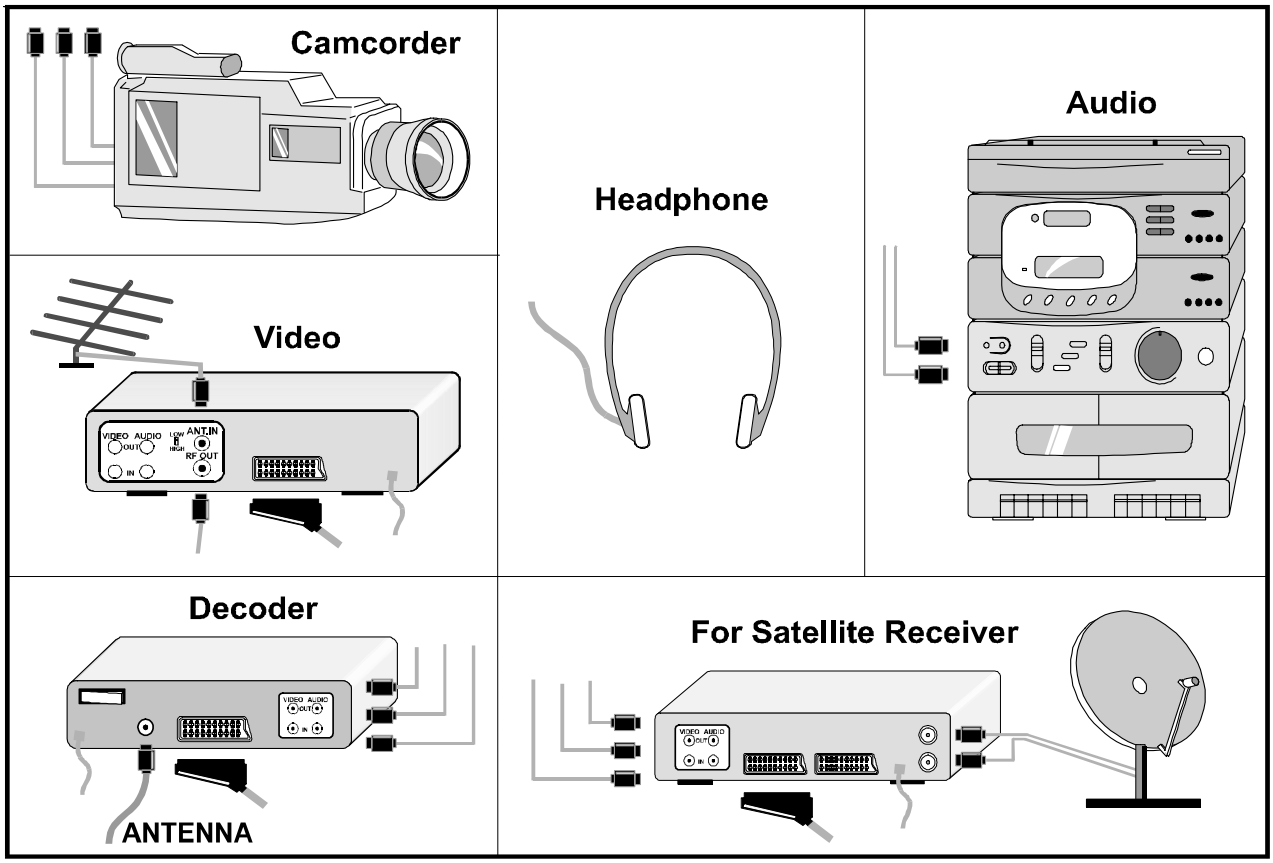
④ CI (Common Interface) Slot

⑤ Antenna Socket

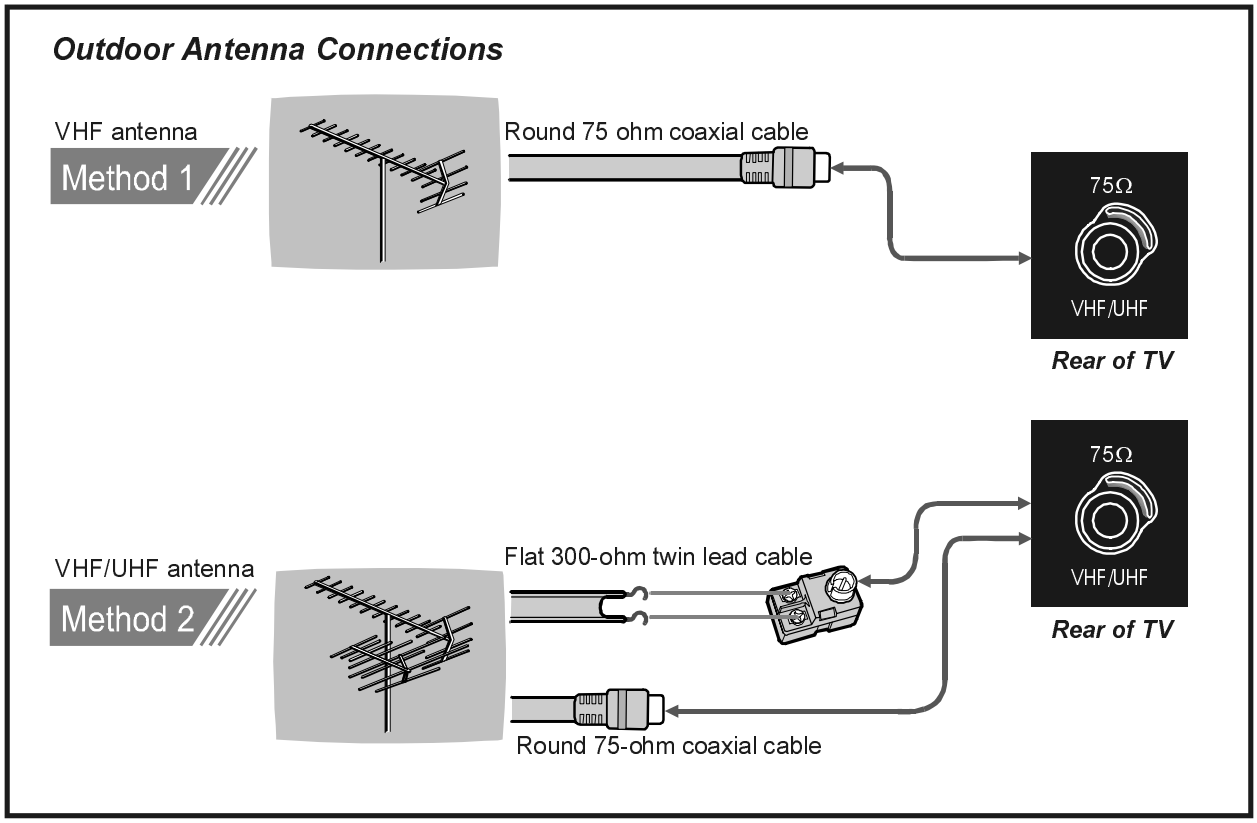
⑥ EXT.1 (Scart 1)

⑦ EXT.2 (Scart 2) (Use when you record digital broadcasting)

Peripheral Equipments



Antenna Connections



Tips

Can not turn the TV on?

Check that TV/VCR/DVD switch is set to TV position.

TV may go to stand-by mode when you turn the TV on soon after you turn the TV off. If you can turn the TV on again, it is not a problem.

Can not turn the TV off?

Check that TV/VCR/DVD switch is set to TV position.

Care of the Screen

Clean the screen with a slightly damp, soft cloth. Do not use abrasive solvents as they may damage the TV screen coating layer.

Colours of image on screen are abnormal

Have you selected the correct TV system? Is your TV set or house aerial located too close to the loudspeakers, non-earthed audio equipment or neon lights, etc. ?

Mountains or high buildings can cause double pictures or ghost images. Sometimes you can improve the picture quality by changing the direction of the aerial.

Is the picture or Teletext unrecognisable? Check if you have entered the correct frequency.

The picture quality may degrade when two peripherals are connected to the TV at the same time. In such a case, disconnect one of the peripherals.

No Image on Display Screen

Is the aerial connected properly? Are the plugs connected tightly to the aerial socket? Is the aerial cable damaged? Are suitable plugs used to connect the aerial? If you are in doubt, consult your dealer.

No Image means that your TV is not receiving any transmission. Have you pressed the correct buttons on the remote control? Try once more.

Sound

You can not hear any sound. Did you perhaps interrupt the sound, pressing "🔇" button? Are external speakers connected to the TV?

Sound is coming from only one of the speakers. Is the balance set to one direction extreme? See **Sound** menu.

Remote Control

If your TV no longer responds to the remote control, perhaps the batteries are exhausted. Replace the batteries.

Have you selected the wrong menu? Press "**MENU**" button to return to normal screen or press "**BACK**" button to return to the previous menu.

No solution

If the TV suddenly stops responding, disconnect the power cord of the TV from the AC outlet. Connect it to the AC outlet again to turn on the TV. If the TV returns to a normal state, it is not a failure. If this does not work, switch off, remove the mains plug and call the service personnel; never attempt to repair it yourself.

Bad picture (in digital mode)

Although this TV can receive both Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting, you may not be able to receive DVB-T depending on the area in which you live.

If the picture freezes a lot, or block effect is seen frequently on screen, probably there is a problem with your reception.

Please contact customer services of your service provider if you are a subscriber.

For users in the UK:

If you have any problems setting up your new TV, please call the JVC Helpline on 0870330 5000

For users in the Republic of Ireland:

If you have any problems setting up your new TV, please call the JVC Helpline on 1890 - 582500

Specifications

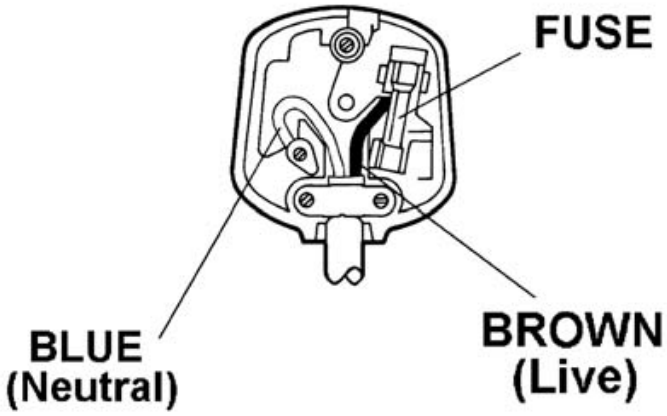
Model	AV-32E50SK	AV-28E50SK
Broadcasting Systems	PAL I/I'	
Channels and Frequencies	Digital (DVB-T): 474 MHz - 858 MHz (channel 21-68) Analogue: 46.25 MHz - 862.25 MHz (channel 01-17/21-73) Cable TV: S1 - S41	
Sound System	NICAM Stereo	
Power Requirements	220-240 V AC, 50 Hz	
Power Consumption	167W (Standby < 3W)	137W (Standby < 3W)
Picture Tube Size	Viewable area 76 cm. (measured diagonally)	Viewable area 66 cm. (measured diagonally)
Audio Output	2x10W RMS (10% THD)	
EXT.1 Terminal	Euroconnector (21-pin, SCART) * Video Input, Audio L/R Inputs and RGB Inputs are available. * Analogue TV broadcast output (Video and Audio L/R) are available.	
EXT.2 Terminal	Euroconnector (21-pin, SCART) * Video Input, S-VIDEO (Y/C) Input and Audio L/R Inputs are available. * Video and Audio L/R outputs are available. * T-V LINK functions are available.	
EXT.3 Terminal	RCA connectors x 3 * Video Input and Audio Inputs are available.	
CI Slot	DVB Common Interface is available.	
Headphone jack	Stereo mini-jack (3.5 mm in diameter)	
Dimensions (WxHxD)	830 mm x 602 mm x 550 mm	744 mm x 542 mm x 492 mm
Weight	53.0 kg	41.0 kg
Accessories	Remote control unit x 1 (RM-C1815S) AA/R6 dry cell battery x 2	

Important Instruction

For your own safety read following instruction carefully before attempting to connect this unit to the mains supply.

MAINS (AC) OPERATION

The wires in this mains lead are coloured in accordance with the following code :



IMPORTANT

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

No connection is to be made to the Earth terminal of the plug.

If a 13 Amp (BS 1363) Plug is used a 5 Amp Fuse must be fitted, or if any other type of Plug is used a 5 Amp Fuse must be fitted, either in the Plug of Adaptor, or on the Distribution Board.

If your product is fitted with a moulded plug which requires replacement please cut off and dispose of safely, then rewire as shown above.

CAUTION

TO PREVENT ELECTRIC SHOCK DISCONNECT FROM THE MAINS BEFORE REMOVING COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SAFETY PRECAUTION

THIS EQUIPMENT MUST BE DISCONNECTED FROM THE MAINS WHEN NOT IN USE. DO NOT ALLOW THIS UNIT TO BE EXPOSED TO RAIN OR MOISTURE.